

REMARKS

Claims 9, 10, 13-19, 34, and 36-40, as amended, remain herein. Claims 12 and 35 are canceled without prejudice or disclaimer.

1. Claims 15 and 34 are amended to moot the objections thereto.
2. Claims 15, 16 and 19 were rejected under 35 U.S.C. § 102 (b) over Ochiai '973.

Ochiai '973 fails to disclose or suggest "wherein ... block access data is a data unit comprising a pair of bank access data belonging to different banks, and a memory request is made by a single bank access data from a block permitted to access the memory," as recited in claim 15. While claim 15 recites the use of a block access data which is a pair of bank access data, Ochiai '973 does not describe any pairing of access data. In fact, column 25, lines 48-57 of Ochiai '973 shows that each transfer request information is treated distinctly, without pairing ("The head specifying portion 304 specifies for each transfer request information a head bank to be accessed first.").

Further, claim 15 accounts for an embodiment where only a single command (*e.g.*, bank access data) is contained within a block (*e.g.*, block access data). When only a single command is set in the second block, the command is set in the second-half of the block. In such an embodiment, as recited in claim 15, a wait time for a command is generated so that the second-half command of the first block is not influenced by an accessing bank.

Ochiai '973 does not disclose these elements of claim 15, because Ochiai '973 fails to disclose or suggest "wherein... a memory request is made by a single bank access data from a block permitted to access the memory," as recited in claim 15. Ochiai '973 is simply silent regarding this portion of claim 15.

For all the foregoing reasons, there is no disclosure or teaching in Ochiai ‘973 of all elements of applicants’ presently claimed invention. Accordingly, Ochiai ‘973 is not an adequate basis for a rejection of applicants’ claims under § 102. Nor is there any disclosure in Ochiai ‘973 that would have suggested applicants’ claimed invention to one of ordinary skill in this art. Reconsideration and withdrawal of this rejection of claims 15-17 are respectfully requested.

3. Claims 17 and 18 were rejected under 35 U.S.C. 103 (a) over Ochiai ‘973. Claims 17 and 18 are patentable for the reasons discussed above with respect to claim 15.

4. Claims 9, 10, 13, 14, 34, and 35-40 were rejected under 35 U.S.C. § 103 (a) over Ochiai ‘973 and Miyawaki ‘266.

Claim 9 recites, “wherein bank access data is access data to the memory with a predetermined number of bytes for writing or reading on a same bank of the memory and block access data is a data unit with a pair of bank access data including a first-half bank access data and a second-half bank access data belonging to different banks.” Neither Ochiai nor Miyawaki teaches or suggests the recited elements of claim 9. As discussed above with respect to claim 15, Ochiai fails to describe any pairing of access data. See Ochiai, col. 25, line 51-57. Miyawaki likewise fails to provide what is missing in Ochiai.

Further, claim 9 covers an embodiment where an order of data access within a single block is switched when the second-half command of the first block is the same as the first-half command of the second block. The change in data access does not take place indiscriminately, but, as claimed in claim 9, within a single “block access data.” Ochiai ‘973 does not contemplate the use of a block with a paired bank access data, so Ochiai ‘973 fails to teach or suggest

changing the order of data access within a single block access data. Miyawaki fails to provide what Ochiai lacks.

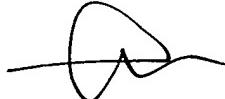
With respect to claim 34, neither Ochiai '973 nor Miyawaki '266 teaches or suggests "an arbitrating method designating unit for designating either higher priority on a bank changing the priority of memory access to prevent successive access to the same bank or higher priority on access changing the priority of memory access to have successive read access when the memory access request from the plurality of blocks is made to the same bank as immediately preceding access and memory access permitted by the arbitration circuit immediately before is read access," as recited in claim 34. Priority determination as described in page 29, lines 24-28 of Ochiai is different from applicants' claimed "arbitration method designating unit."

Thus, there is no disclosure or teaching in either Ochiai '973 or Miyawaki '266 of all elements of applicants' claimed invention. Nor is there any disclosure or teaching in either Ochiai '973 or Miyawaki '266 that would have suggested applicants' claimed invention to one of ordinary skill in the art. Still further, there is no disclosure or teaching in either of these references, and no sound basis stated in this record, that would have suggested the desirability of combining any portions thereof effectively to anticipate or render obvious applicant's claimed invention. Accordingly, reconsideration and withdrawal of these grounds of rejection, and allowance of all claims 9, 10, 13-14, 34, and 36-40 are respectfully requested.

Accordingly, all claims 9, 10, 13-19 and 34, and 36-40 are now fully in condition for allowance and a notice to that effect is respectfully requested. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

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